APPENDIX Z

EBMUD WATER SUPPLY ASSESSMENT (WSA)

EAST BAY
MUNICIPAL UTILITY DISTRICT

September 10, 2008

Lina Velasco, Senior Planner
City of Richmond
Planning Department
1401 Marina Way South
Richmond, CA 94804

Re: Water Supply Assessment – Point Molate Mixed-Use Tribal Destination Resort and Casino Project, Richmond

Dear Ms. Velasco:

This letter responds to your request of June 13, 2008, for water agency consultation concerning the Point Molate Mixed-Use Tribal Destination Resort and Casino Project (Enclosure 1) located in the City of Richmond (City). The East Bay Municipal Utility District (EBMUD) appreciates the opportunity to provide this response.

Pursuant to Sections 10910-10915 (Senate Bill 610) of the California Water Code, the project meets the threshold requirement for an assessment of water supply availability based on the amount of water this project would require, a mixed-use project that would demand an amount of water equivalent to or greater than the amount of water required by a 500 dwelling unit project.

Please note that this assessment addresses the issue of water supply only and is not a guarantee of service, and that future water service is subject to rates and regulations in effect at the time.

Project Area

The Point Molate Mixed-Use Tribal Destination Resort and Casino Project area is bounded by the San Francisco Bay shoreline to the west, Chevron Texaco refinery to the east, and open space to the north and south. The project area consists of approximately 420 acres, of which approximately 140 acres are submerged within the San Francisco Bay. As described in the City's Water Supply Assessment (WSA) request letter, the Point Molate Mixed-Use Tribal Destination Resort and Casino Project includes five development alternatives that vary with respect to the proposed components and project footprint. The City requested that the WSA analyze the proposed project (Alternative A) and the alternative with the greatest projected demand (Alternative B). Alternative A proposes approximately 637,000 square feet of hotel space; 124,000 square feet of casino space; 509,000 square feet of retail space; and 219,000 square feet of office space, which includes a police substation and fire station. Alternative B differs from Alternative A in that 340 residential units would be developed in addition to all the features of Alternative A.

pre-1914 rights; and riparian rights. Conditions that could, depending on hydrology, restrict EBMUD's ability to receive its full entitlement include:

- Upstream water use by prior right holders.
- Downstream water use by riparian and senior appropriators and other downstream obligations, including protection of public trust resources.
- Variability in rainfall and runoff.

During drought periods, the Mokelumne River can no longer meet EBMUD's projected customer demands. To address this, EBMUD has obtained and continues to seek supplemental supplies. EBMUD has a contract for water from the Central Valley Project (CVP), which is discussed below in the Supplemental Water Supply and Demand Management section of this assessment. EBMUD studies indicate that by 2030, even with the additional dry-year water supply provided through the Freeport Regional Water Project (FRWP), deficiencies in supply of up to 37 percent could occur during multi-year drought periods.

EBMUD UWMP

The UWMP, adopted on November 22, 2005 by the EBMUD Board of Directors by Resolution No. 33508-05, is a long-range planning document that reports on EBMUD's current and projected water usage; water supply programs; and conservation and recycling programs. A summary of EBMUD's demand and supply projections, in 5-year increments for a 25-year planning horizon is provided in a table (Enclosure 3) from the UWMP. The data reflects the latest actual and forecast values.

EBMUD's evaluation of water supply availability accounts for the diversions of both upstream and downstream water right holders and fishery releases on the Mokelumne River. Fishery releases are based on the requirements of a 1998 Joint Settlement Agreement (JSA) between EBMUD, United States (U.S.) Fish and Wildlife Service, and the California Department of Fish and Game. The JSA requires EBMUD to make minimum flow releases from its reservoirs to the lower Mokelumne River to protect and enhance the fishery resources and ecosystem of the river. As this water is released downriver, it is, therefore, not available for use by EBMUD's customers.

The available supply shown in Enclosure 3 was derived from EBMUD's hydrologic model with the following assumptions:

- EBMUD Drought Planning Sequence is used for 1976, 1977 and 1978.
- Total system storage is depleted by the end of the third year of the drought.
- EBMUD will implement its Drought Management Program when necessary.
- The diversions by Amador and Calaveras Counties upstream of Pardee Reservoir increase over time.

Project Demand

The water demands for the Point Molate Mixed-Use Tribal Destination Resort and Casino Project area are accounted for in EBMUD's water demand projections as published in EBMUD's 2005 Urban Water Management Plan (UWMP/Enclosure 2). EBMUD's water demand projections account for anticipated future water demands within EBMUD's service boundaries and for variations in demand-attributed changes in development patterns. The current land use is the former Naval Fuel Depot where water use was averaging about 55,000 gallons per day (gpd) as provided by the City. The estimated water demand for Alternatives A and B is 669,000 and 864,000 gpd, respectively, and is consistent with EBMUD's demand projections that indicate both densification and land use class changes in some areas with these types of land uses.

EBMUD's demand projections indicate both densification and land use changes in all existing land use classifications, including commercial and industrial land use areas, thus increasing EBMUD's overall demand. EBMUD's 2005 UWMP projects water demands over time, accounting for estimated variations in demand usage less conservation and recycled supply sources as noted in Table 4.1 of the UWMP. For planning purposes, the demands are estimated in five-year increments, but it is recognized that actual incremental amounts may occur stepwise in shorter time increments. An increase in usage by one customer in a particular customer class does not require a strict gallon-for-gallon increase in conservation by other customers in that class as, in actuality, the amount of potable demand, conservation and recycled water use EBMUD-wide will vary somewhat. Periodically, EBMUD updates the demand projections to reconcile these variations, and the UWMP is updated as appropriate at each five-year cycle.

EBMUD Water Demand Projections

Water consumption within the EBMUD service area has remained relatively level in recent years in spite of population and account growth. Since the 1970s, water demand has ranged from 200 to 220 million gallons per day (mgd) in non-drought years. The 2030 water demand forecast of 281 mgd for the EBMUD service area can be reduced to 232 mgd with the successful implementation of water recycling and conservation programs, as outlined in the UWMP. The Point Molate Mixed-Use Tribal Destination Resort and Casino Project will not change the EBMUD 2030 demand projection.

EBMUD Water Supply and Water Rights

EBMUD has water rights permits and licenses that allow for delivery of up to a maximum 325 mgd from the Mokelumne River, subject to the availability of Mokelumne River runoff and the senior water rights of other users. EBMUD's position in the hierarchy of Mokelumne River water users is determined by a variety of agreements between Mokelumne River water right holders; the appropriative water rights permits and licenses, which have been issued by the State;

- Releases are made to meet the requirements of senior downstream water right holders and fishery releases are made according to the JSA.
- Dry-year supply of CVP water, through the FRWP, is available beginning in 2010.

As discussed under the Drought Management Program section in Chapter 3 of the UWMP, EBMUD's system storage generally allows it to continue serving its customers during dry-year events. EBMUD imposes rationing based on the projected storage available at the end of September. By imposing rationing in the first dry year of potential drought periods, EBMUD attempts to minimize rationing in subsequent years if a drought persists while continuing to meet its current and subsequent-year fishery flow release requirements and obligations to downstream agencies. Table 3-1 in the UWMP summarizes the Drought Management Program guidelines for consumer water reduction goals based on projected system storage.

In the table (Enclosure 3), "Single Dry Water Year" (or Year 1 of "Multiple Dry Water Years") is determined to be a year that EBMUD would implement Drought Management Program elements at the "moderate" stage with the goal of achieving a reduction between 0 to 15 percent in customer demand. Through the FRWP, the supplemental dry-year supply of CVP water will be used to reduce the rationing goal to 5 percent during the first year of a drought. Year 2 of Multiple Dry Years is determined to be a year that EBMUD would implement Drought Management Program elements at the "severe" stage with the goal of achieving between 15 to 25 percent reduction in customer demand. In Year 3 of the multiple-year drought, under current conditions (2005) and prior to the completion of the FRWP, EBMUD customers could experience deficiencies of up to 56 percent. After the completion of the FRWP, water supply deficiencies could range from about 26 percent in year 2010 to about 37 percent in year 2030. Therefore, a supplemental supply is needed, which is defined by EBMUD as the additional amount of water necessary to limit customer deficiency to 25 percent in a multiple-year drought while continuing to meet the requirements of senior downstream water right holders and the provisions of the 1998 JSA.

Supplemental Water Supply and Demand Management

The goals of meeting projected water needs and increased water reliability rely on three components: supplemental supply, water conservation and recycled water.

Chapter 2 of the UWMP describes EBMUD's supplemental water supply project alternatives to meet its long-term water demand. To address the need for a supplemental water supply during droughts, EBMUD signed a contract in 1970 with the Federal government for a supplemental supply from the CVP. In 2001, EBMUD certified the environmental documentation amending its CVP contract 14-06-200-5183A, reducing EBMUD's contract from 150,000 acre-feet (AF)/year to an entitlement not to exceed 133,000 AF in any one year or 165,000 AF over any three consecutive years. In 2001, EBMUD signed a Memorandum of Agreement with the City of Sacramento, the County of Sacramento and the U.S. Bureau of Reclamation to study a joint regional water project on the Sacramento River near Freeport.

The Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) of the FRWP identifies several regulatory permits and approvals required for the implementation of the project alternatives. These are listed in Table 2-6 of the FRWP Draft EIR/EIS, July 2003, and incorporated in the Final EIR/EIS for the project, which was certified in April 2004. The approvals for FRWP have been obtained. EBMUD will still face water supply shortages even with the additional dry-year supply provided by the FRWP; however, the frequency and severity of customer rationing during drought periods will be reduced.

Chapter 2 of the UWMP also describes other supplemental water projects, including the development of groundwater storage within EBMUD's service area. EBMUD is studying the environmental impacts of these proposed projects. Specific capital outlay and financing information for these projects are included in EBMUD's FY06-07 Capital Improvement Program and Five-Year Plan. The FRWP would also allow for a future groundwater conjunctive use component and, along with the proposed local groundwater projects, emergency interties and planned water recycling and conservation efforts, would ensure a reliable water supply to meet projected demands for current and future EBMUD customers within the current service area. Without a supplemental water supply source, beyond the FRWP, and despite continued conservation efforts and further use of recycled water, deficiencies in supply are projected as noted above.

The Point Molate Mixed-Use Tribal Destination Resort and Casino Project presents an opportunity to incorporate water conservation measures. Conditions of approval for the implementation of the Point Molate Mixed-Use Tribal Destination Resort and Casino Project should require that the project comply with Assembly Bill 325, Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). EBMUD staff would appreciate the opportunity to meet with project sponsors to discuss water conservation programs and best management practices applicable to such projects. A key objective of these discussions will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs, including its Section 31 requirements in the EBMUD Regulations governing water service and best management practices applicable to the project.

Appropriate uses of recycled water at the proposed project include landscape irrigation, water features, toilet and urinal flushing, and other applications. The Point Molate Mixed-Use Tribal Destination Resort and Casino Project is located approximately 6 miles southwest of EBMUD's North Richmond Water Reclamation Plant and approximately 3.5 miles northwest of the City's Wastewater Treatment Plant (WWTP). The proposed project is a potential candidate for using recycled water from an onsite package recycled water treatment plant, which has been implemented in other casino/resort projects throughout California. The City's WWTP is also a potential supply source to generate recycled water if further treated. Virtually all of the wastewater supply source from the West County Wastewater District will be used to produce recycled water to offset potable water use at the Chevron Texaco refinery. EBMUD's Policy 8.01 mandates the use of recycled water when it is of adequate quality and quantity,

available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wildlife. In this case, therefore, EBMUD requests that the developer work closely with EBMUD to determine appropriate applications for recycled water, and separately plumb and install facilities to accommodate the use of recycled water to offset the use of potable water.

The project sponsor should contact David J. Rehnstrom, Senior Civil Engineer, at (510) 287-1365 for further information.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning Division

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Enclosures: 1. Letter of Request for Water Supply Assessment dated June 13, 2008
2. EBMUD's 2005 Urban Water Management Plan
3. EBMUD's Demand and Supply Projections Table

cc: Board of Directors w/o Enclosure 2

Enclosure 1

Printed on Recycled Paper

City of Richmond

PLANNING DEPARTMENT

June 13, 2008

RECEIVED

JUN 19 2008

WATER SERVICE PLANNING

Mr. David Rehnstrom, Senior Civil Engineer
East Bay Municipal Utility District
Water Distribution Planning Division
375 11th Street, MS 701
Oakland, CA 94612

RE: Request for Water Supply Assessment for the proposed Point Molate Mixed-Use Tribal Destination Resort and Casino Project, City of Richmond, Contra Costa County

Dear Mr. Rehnstrom:

Pursuant to the amendments to Section 10912 of the Water Code implemented by Senate Bill 610, the City of Richmond (City) is submitting this request to East Bay Municipal Utility District (EBMUD) to prepare a water supply assessment (WSA). The WSA is required to determine if adequate water supply is available to meet the projected demand of the proposed Point Molate Mixed-Use Tribal Destination Resort and Casino Project (Proposed Project) located in the Richmond, Contra Costa County, CA.

The City is requesting that EBMUD prepare the required WSA to verify that water supplies are sufficient for the Proposed Project over the 20-year period for normal, single dry, and multiple dry years, and to determine if the proposed increase in water consumption would require new or expanded water entitlements or would impact water supply or distribution systems.

The City, in cooperation with the Bureau of Indian Affairs (BIA), has initiated the preparation of a joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS) to analyze the environmental effects of taking the former Point Molate Naval Fuel Depot into federal trust for the Guidiville Band of Pomo Indians of the Guidiville Rancheria (Tribe) and the reasonably foreseeable outcomes of such an approval. The project site consists of 420 acres, of which approximately 140 acres are submerged within the San Francisco Bay. The project site consists of lands owned by the U.S. Navy and the City of Richmond. Contra Costa County has given the project site Assessor's Parcel Number (APN) 561-100-008.

Five development alternatives, as well as a "no action" alternative, are being analyzed in the joint EIR/EIS. The five development alternatives vary substantially with respect to the proposed components, project foot print, and overall projected water demand. As such, the City hereby requests that the WSA analyze the Proposed Project (Alternative A) and also consider the alternative with the greatest projected demand (Alternative B). Four of the alternatives are summarized below. A fifth alternative (E) is not included since it does not meet any of the criteria provided in the California Water Code § 10912(a).

Alternative A would consist of a planned development incorporating a large retail component, resort hotel with amenities, a tribal casino, a conference center, entertainment facility, ferry transportation facilities, parking, tribal government buildings, tribal cultural facilities, a police substation, fire station, parks and outdoor recreation, and open space. Alternative B differs from Alternative A in that 340 residential units would be developed on a 32-acre parcel in the southwestern portion of the property, in addition to all of the features and amenities described

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for Alternative A. Alternative C would be a reduced version of Alternative A with fewer hotel rooms and scaled-down entertainment, conference, and retail facilities; Alternative D would include development of approximately 1,100 units of high-, medium-, and low-density housing, a hotel-conference center, small retail and professional center in the historic Winehaven building, and 29 small professional offices in the historic Winehaven cottages. The estimated start of construction of the Proposed Project is 2009.

The project site is connected to the EBMUD system through a 12-inch diameter water main along Western Drive, which was installed in 1997. While EBMUD had previously supplied up to around 55,000 gpd to the site during Naval operations, the water supply system on site is now normally kept off, as there has been little demand for potable water since military operations ceased in 1996. The infrastructure is currently maintained in caretaker status for fire suppression purposes.

The estimated demand for the Proposed Project (Alternative A) is 460 gallons per minute (gpm) to meet anticipated average day water demand and 800 gpm to meet anticipated peak day demands. Alternative B is anticipated to result in the greatest demand for potable water at 600 gpm to meet anticipated average day water demand and 980 gpm to meet anticipated peak day demands. A Water and Wastewater Feasibility Study, prepared by HydroScience Engineers for the all project alternatives under consideration, is attached. Ms. Angela Singer, engineer at HydroScience, is available to provide technical assistance as needed for your assessment. She can be reached at (707) 254-1900.

We are hoping to receive this information in advance of the 90 day assessment period. The information you provide will be included in the joint EIR/EIS document and will be used to support findings by the City. Please advise me of your anticipated response date. If you need additional information or have any questions, please contact me at (510) 620-6841.

Regards,

Lina Velasco
Senior Planner

cc: Mike Taggart, Analytical Environmental Services
Angela Singer, HydroScience Engineers

Enclosure 3

EAST BAY MUNICIPAL UTILITY DISTRICT DEMAND AND SUPPLY PROJECTIONS
(Ref: Table 4-2, UWMP 2005 – EBMUD)

	2005	2010	2015	2020	2025	2030
PROJECTED DEMAND (MGD)						
Customer Demand(1)	241	258	267	277	279	281
Adjusted for Conservation(2)	(13)	(21)	(27)	(35)	(35)	(35)
Adjusted for Recycled Water(2)	(6)	(12)	(14)	(14)	(14)	(14)
Planning Level of Demand	**222**	**225**	**226**	**228**	**230**	**232**
PROJECTED AVAILABLE SUPPLY & NEED FOR SUPPLEMENTAL SUPPLY(3) (MGD)						
Normal Water Year	>222	>225	>226	>228	>230	>232
Supplemental Supply Need	0	0	**0**	0	0	0
Single Dry Water Year (Multiple Dry Years – Year 1)						
Available Supply	211	213	215	217	219	220
Deficiency (Goal is 5% maximum(4))	5%(5)	5%	5%	5%	5%	5%
Supplemental Supply Need (6)	69	0	0	0	**0**	0
Multiple Dry Water Years – Year 2						
Available Supply	167	168	170	171	173	174
Deficiency (Goal is 25% maximum(7))	25%	25%	25%	25%	25%	25%
Supplemental Supply Need (6)	40	0	0	0	0	0
Multiple Dry Water Years – Year 3						
Available Supply	43	167	166	153	151	147
Deficiency (Goal is 25% maximum(7))	56%	26%	27%	33%	34%	37%
Supplemental Supply Need (To limit deficiency to 25%(6))	15	1	4	18	22	27
Three-Year Drought						
Total Supplemental Supply Need (To limit deficiency to 25%(6))	**124 (8)**	**1**	**4**	**18**	**22**	**27**

(1) Projected Demand derived from the 2000 Demand Study, which projects water demand based on land use in EBMUD's service area.
(2) Conservation and recycled water program savings reported are based on the 1993 Updated Water Supply Management Plan (WSMP). WSMP set a conservation program savings goal of 33 MGD and a recycled water program savings goal of 14 MGD for the year 2020. Since the adoption of the WSMP the conservation savings goal has increased to 35 MGD to offset demand from anticipated annexations to EBMUD's service area. Conservation and recycled water savings goals are to be upheld through 2030. Reference Chapter 5 and Chapter 6 for details.
(3) Projected Supply data includes dry-year supply deliveries from the Freeport Regional Water Project (FRWP) beginning in 2010. Without the FRWP supply 2020 deficiencies could be as high as 67%, as discussed in the UWMP 2000.
(4) Per 2003 FRWP EIR, rationing goal is set to 5% during the first year of all droughts.
(5) In 2005 and prior to the completion of the FRWP, EBMUD's water supply system is inadequate to supply 95% of demand, and may impose customer rationing up to 15% during the first year of a drought, resulting in a need for additional water.
(6) The supplemental supply need is based on EBMUDSIM model results. It is the amount of water needed to limit customer rationing to 5% during the first year of a three-year drought and 25% during the second and third year of a three-year drought; to implement all provisions of the 1998 Joint Settlement Agreement, and to offset additional water supply system losses created by a supplemental supply. The actual need will be dependent on antecedent conditions, the severity of the actual drought, and on how much supplemental supply is obtained during the first two years of the drought and added to storage for use in subsequent years.
(7) Assumed drought conditions, per Table 3-1 (Chapter 3).
(8) An additional 15 MGD is needed in the third year if a supplemental supply is obtained in year 1 and year 2. If a supplemental supply is not available during years 1 and 2 of the drought, total system storage could be drawn down to meet 95% of demand in the first year and 75% in the second year, creating a greater storage deficit and a greater supplemental supply need in the third year.